MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2019/2020

DBM5024 BUSINESS FINANCE

(All Sections/Groups)

9 MARCH 2020
9.00 a.m. – 11.00 a.m.
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of 9 pages (excluding the cover page and formula appendix) with 2 sections.

2. Attempt **ALL** questions in Section A and Section B. The distribution of the marks for each question is given.

3. Please write all your answers for Section A on the OMR form provided and all answers for Section B in the Answer Booklet provided.

4. The formulae are given in the appendices.

SECTION A: Multiple Choice Questions (30 Marks)

1. Erika needs to get advice on investment matter, so she goes to the investment bank to get it. Which basic area of finance this situation is referring to?

   A. International finance.
   B. Financial institution.
   C. Corporate finance.
   D. Offshore banking.

2. Alicia works in Tiktok Bhd's finance department. As a _____, she is dealing with taxes and all the accounting works.

   A. Controller
   B. Tax collector
   C. Treasurer
   D. Chief Financial Officer

3. Siew Mei needs to know _____ knowledge so that she will be able to manage the company's day-to-day finances.

   A. capital budgeting
   B. capital structure
   C. capital financing
   D. working capital management

4. Haziq owns a pet shop. He always dream to open a bigger pet shop when he started the business, but the capital he has is limited. Based on this situation, what form of business Haziq is in?

   A. Corporation.
   B. Limited liability partnership.
   C. Sole proprietorship.
   D. General partnership.

5. Which of the following is the goal of a corporation?

   A. Minimise the current value per share of the company's existing stock.
   B. Minimise the market value of the future owner's equity.
   C. Maximise the current value per share of the company's existing stock.
   D. Maximise the future value per share of the company's past stock.

Continued ...

6. In terms of personal finance, what can an individual do if he/she has the knowledge of finance?

   A. Marketing research.
   B. Retirement planning.
   C. Evaluating job performance.
   D. Preparation of financial statements.

7. _____ is referring to the speed and ease of conversion to cash without a significant loss of value.

   A. Liquidity
   B. Derivative
   C. Feasibility
   D. Equity

8. Nurin who is an investor must look into the _____ of an asset in order to identify the true value of the underlying asset before making the purchased.

   A. book value
   B. market value
   C. underlying value
   D. specific value

9. Which of the following defines the function of an income statement?

   A. The income statement measures the performance of the company over a specified period of time.
   B. The income statement recognise the revenue of the company when it is fully earned and match it with the expenses.
   C. The income statement shows how cash is generated from borrowing money.
   D. The income statement shows the historical value of an asset.

10. Xin Yi Sdn Bhd has stated a long-term debt of RM500. Its current liability is RM200 and cost of goods manufactured is RM80. Calculate the total liability of this company.

    A. RM220.
    B. RM620.
    C. RM700.
    D. RM780

Continued ...

11. Shi Chi wants to know the amount of total tax paid on her taxable income of RM5,250. Based on the data below, calculate the total tax paid.

Taxable Income (RM)	Tax Rate (%)
0 – 2,000	16
2,001 – 4,000	2
4,001 – 6,000	10
6,001 – 8,000	5

A. RM485.
B. RM525.
C. RM560.
D. RM780.

12. The financial statements of Tan Kok Young Enterprise show a depreciation expenses of RM8,000 and interest expenses of RM500 for the year. The statement also indicates the ending net fixed asset at RM10,000 and the beginning net assets is RM8,000. What is the amount of the net capital spending for the year?

A. RM9,500.
B. RM10,000.
C. RM10,500.
D. RM26,500.

13. Alyssa plans to invest RM88 today with an interest of 8 percent. This will enable her to received RM190 in 10 years' time. The amount RM88 is referring to the _____.

A. true value
B. future value
C. present value
D. interest on interest value

14. Eldon is planning to invest RM800 for 5 years. Which of the following investment plan will give him the highest future value?

A. 5 percent interest that compounded quarterly.
B. 10 percent of simple interest.
C. 8 percent of simple interest.
D. 5 percent interest that compounded semiannually.

Continued ...

15. In a normal practice by banks, the bank pays simple interest on a savings account which pay interest _____.

    A. on interest
    B. on the initial principal amount
    C. on the reinvested amount
    D. on the beginning of the investment period only

16. The interest rate used to compute the present value of a future cash flow is called the _____.

    A. marginal rate
    B. simple rate
    C. compounding rate
    D. discount rate

17. Given a higher time period, the present value of an investment will always be _____.

    A. Increases
    B. Decreases
    C. remain constant
    D. equal to zero

18. Henry wants to buy a new furniture for his mother. He currently has RM1,000 and the furniture costs RM4,000. If he can earn a 10 percent interest on an investment, how long will he have to wait in order to get the RM4,000?

    A. 5 years.
    B. 14.55 years.
    C. 25 years.
    D. 28.56 years.

19. Loenard received TM Scholarship that will pay him RM1,000 a month starting today, and continue for 3 years. Which of the following describes this situation?

    A. Annuity due.
    B. Perpetuity.
    C. Consolidation.
    D. Ordinary annuity.

Continued ...

20. _____ is an interest rate that expressed as if it were compounded once per year.

A. Annual percentage rate
B. Nominal rate
C. Effective annual rate
D. Infinite discount rate.

21. Zi Lin Inc. decided to save money each year for the next 3 years to help fund for a new project. If it earns 8 percent on its savings, how much will the firm accumulate at the end of year 3?

Year	Amount saved
1	RM10,000
2	RM5,000
3	RM18,000

A. RM20,800.
B. RM35,064.
C. RM48,000.
D. RM80,000.

22. Justin Lin has start-up costs project that will produce an annual cash flow of RM18,000 a year for 8 years. The company requires an 18 percent rate of return. What will be the present value annuity for this project?

A. RM58,258.56
B. RM61,800.00
C. RM73,396.18
D. RM98,800.00

23. A preferred stock pays an annual dividend of RM80. What is one share of this stock worth to you today if you require a 15 percent rate of return?
A. RM250.00
B. RM380.20
C. RM483.00
D. RM533.33

Continued ...

24. What will be the Annual Percentage Rate (APR) for a loan that has a compound interest quarterly of 25 percent?

A. 18 percent.
B. 23 percent.
C. 48 percent.
D. 56 percent.

25. Which one of the following best defines the term 'credit scoring'?

A. Categorising customers into groups depending upon the length of time it takes each customer to pay for purchases.
B. Compiling a list of account receivables segregated by the length of time each receivables has been outstanding.
C. Evaluating the opportunity costs of a credit policy.
D. Process of quantifying the probability of default when granting credit to customer.

26. Which one of the following is a speculative motive for holding cash?

A. Buying extra inventory because a key supplier offered a special one-time discount.
B. Paying a RM100 bonus to employees at year end.
C. Paying the annual insurance premium on the firm's assets.
D. Needing to purchase a new delivery truck because the old one was totally destroyed in an accident.

27. Fathiah wrote a check for RM22 on Friday, May 6. The bank cleared the check on Wednesday, May 11. There were no other checks or deposits outstanding during the month. Given this, which one of the following statements is **CORRECT**?

A. On May 11, the available balance was RM22 less than the ledger balance.
B. On May 12, the ledger balance was RM22 less than the available balance.
C. On May 14, the available balance increased by RM22.
D. On May 10, the ledger balance was RM22 less than the available balance.

28. Cash concentration accounts means _____.

A. eliminate the need for lockboxes.
B. decrease a firm's disbursement float by reducing mail and processing delays.
C. allow firms to more efficiently handle cash.
D. tend to decrease a firm's investment income.

Continued ...

29. For which one of the following instruments does a bank guarantee payment by the buyer?

    A. Money market preferred stock.
    B. Commercial paper.
    C. Banker's acceptance.
    D. Invoice.

30. Berlalang's Furniture sells 2,400 sofas a year at an average price per sofa of RM1,250. The carrying cost per unit is RM11.60. The company orders 80 sofas at a time and has a fixed order cost of RM52 per order. The sofas are sold out before they are restocked. What is the economic order quantity?

    A. 147 sofas.
    B. 162 sofas.
    C. 171 sofas.
    D. 188 sofas.

(Total: 30 marks)

Continued ...

SECTION B: Structured Questions (70 Marks)

QUESTION 1

(a) Bumi Armada Berhad issued an 8-year bond with a coupon rate of 25 percent. The face value of the bond is RM1,000 and the bond makes an annual coupon payment. The required return on the bond is 38 percent.

i. Calculate bond price. (7 marks)

ii. Is it selling at par, discount or premium? Why? (2 marks)

iii. Calculate the current yield. (2 marks)

(b) Suppose the real rate is 5.2 percent and the inflation rate is 3.6 percent.

i. What will be the nominal rate? (2.5 marks)

ii. What will be the nominal rate in approximation? (2 marks)

(c) List at least **TWO (2)** differences between debt and equity. (2 marks)

(Total: 17.5 marks)

QUESTION 2

(a) Rock Corporation expects that their dividend will grow over three years. Year 1 is 10 percent, year 2 is 8 percent and year 3 is 11 percent. Afterwards the company pledges to maintain a constant 8.5 percent of dividend growth rate, forever. The company just paid dividend of RM2 per share last year, if the required rate of return on this stock is 13 percent. What is the current price of the share? (12 marks)

(b) The common stock of Jason Berhad is valued at RM22.50 a share. The company increases its dividend by 12 percent annually and expects its next dividend to be RM0.80 per share. What is the total rate of return on this stock? (2.5marks)

(c) As a financial analyst, you observed a stock price of RM18.75 with an expectation of a dividend growth rate of 5% and the most recent dividend was RM1.50. What is the required return? (3 marks)

(Total: 17.5 marks)

Continued ...

QUESTION 3

Split Rocks Sdn. Bhd. is a rare flower grower at Bukit Beruang. The management plan to open a botanic garden beside MMU. The project will need RM0.5 million and estimated cash flow as below table.

Year	1	2	3	4	5
Cash Flow (RM)	200,000	100,000	100,000	80,000	90,000

a. If the required return for a similar project is 10 percent. Should the company accept or reject this project based on NPV method?

(10 marks)

b. Calculate the profitability index for this project. Should the company accept or reject this project?

(7.5 marks)

(Total: 17.5 marks)

QUESTION 4

a. Sime Bardy company will pay an annual dividend of RM5.42 per share. This dividend is expected to increase by 3.8 percent annually. Currently, the firm has a stock price of RM41 a share. What is the cost of equity capital for this firm? (2.5 marks)

b. The Daddys's investment has a beta of 1.08, the premium market rate of return of 12.45 percent and a risk-free rate of 4.1 percent. What is the cost of equity capital for this firm? (2.5 marks)

c. Power Electric has 23,000 shares of common stock outstanding at a price per share of RM57 and a rate of return of 14.2 %. The firm has 6,000 shares of 7% preferred stock outstanding at a price of RM48 a share. The preferred stock has a par value of RM100. The outstanding debt has a total face value of RM350,000 and currently sells for 102% of face value. The yield to maturity on the debt is 8.49%. What is the firm's weighted average cost of capital (WACC) if the tax rate is 34%? (12.5 marks)

(Total: 17.5 marks)

End of Paper

Appendix

I. The cash flow identity

Cash flow from assets = Cash flow to creditors (bondholders)
+ Cash flow to stockholders (owners)

II. Cash flow from assets

Cash flow from assets = Operating cash flow
− Net capital spending
− Change in net working capital (NWC)

where

Operating cash flow = Earnings before interest and taxes (EBIT)
+ Depreciation − Taxes

Net capital spending = Ending net fixed assets − Beginning net fixed assets
+ Depreciation

Change in NWC = Ending NWC − Beginning NWC

III. Cash flow to creditors (bondholders)

Cash flow to creditors = Interest paid − Net new borrowing

IV. Cash flow to stockholders (owners)

Cash flow to stockholders = Dividends paid − Net new equity raised

I. Symbols

PV = Present value, what future cash flows are worth today

FV_t = Future value, what cash flows are worth in the future

r = Interest rate, rate of return, or discount rate per period typically , but not always, one year

t = Number of periods typically , but not always, the number of years

C = Cash amount

II. Future value of *C* invested at *r* percent per period for *t* periods

$FV_t = C \times (1 + r)^t$

The term $(1 + r)^t$ is called the *future value factor.*

III. Present value of *C* to be received in *t* periods at *r* percent per period

$PV = C/(1 + r)^t$

The term $1/(1 + r)^t$ is called the *present value factor.*

IV. The basic present value equation giving the relationship between present and future value is

$PV = FV_t/(1 + r)^t$

I. **Symbols**

PV = Present value, what future cash flows are worth today

FV_t = Future value, what cash flows are worth in the future at time t

r = Interest rate, rate of return, or discount rate per period—typically, but not always, one year

t = Number of periods—typically, but not always, the number of years

C = Cash amount

II. **Future value of *C* invested per period for *t* periods at *r* percent per period**

$FV_t = C \times [(1 + r)^t - 1]/r$

A series of identical cash flows paid for a set number of periods is called an annuity, and the term $[(1 + r)^t - 1]/r$ is called the *annuity future value factor.*

III. **Present value of *C* per period for *t* periods at *r* percent per period**

$PV = C \times \{1 - [1/(1 + r)^t]\}/r$

The term $\{1 - [1/(1 + r)^t]\}/r$ is called the *annuity present value factor.*

IV. **Present value of a perpetuity of *C* per period**

$PV = C/r$

A perpetuity has the same cash flow every period forever.

I. **Finding the value of a bond**

Bond value $= C \times [1 - 1/(1 + r)^t]/r + F/(1 + r)^t$

where

C = Coupon paid each period

r = Rate per period

t = Number of periods

F = Bond's face value

II. **Finding the yield on a bond**

Given a bond value, coupon, time to maturity, and face value, it is possible to find the implicit discount rate, or yield to maturity, by trial and error only. To do this, try different discount rates in the formula above until the calculated bond value equals the given bond value. Remember that increasing the rate *decreases* the bond value.

I. **The general case**
In general, the price today of a share of stock, P_0, is the present value of all of its future dividends, $D_1, D_2, D_3, \ldots$:

$$P_0 = \frac{D_1}{(1+R)^1} + \frac{D_2}{(1+R)^2} + \frac{D_3}{(1+R)^3} + \cdots$$

where R is the required return.

II. **Constant growth case**
If the dividend is constant and equal to D, then the price can be written as:

$$P_0 = \frac{D}{R}$$

If the dividend grows at a steady rate, g, then the price can be written as:

$$P_0 = \frac{D_1}{R-g}$$

This result is called the *dividend growth model.*

III. **Nonconstant Growth**
If the dividend grows steadily after t periods, then the price can be written as:

$$P_0 = \frac{D_1}{(1+R)^1} + \frac{D_2}{(1+R)^2} + \cdots + \frac{D_t}{(1+R)^t} + \frac{P_t}{(1+R)^t}$$

where

$$P_t = \frac{D_t \times (1+g)}{(R-g)}$$

IV. **Valuation Using Multiples**
For stocks that don't pay dividends (or have erratic dividend growth rates), we can value them using the PE ratio and/or the price-sales ratio:

P_t = Benchmark PE ratio × EPS_t
P_t = Benchmark price-sales ratio × Sales per $share_t$

V. **The required return, R, can be written as the sum of two things:**

$$R = D_1/P_0 + g$$

where D_1/P_0 is the *dividend yield* and g is the *capital gains yield* (which is the same thing as the growth rate in dividends for the steady growth case).

I. The cost of equity, R_E

A. Dividend growth model approach (from Chapter 7):

$$R_E = D_1/P_0 + g$$

where D_1 is the expected dividend in one period, g is the dividend growth rate, and P_0 is the current stock price.

B. SML approach (from Chapter 11):

$$R_E = R_f + \beta_E \times (R_M - R_f)$$

where R_f is the risk-free rate, R_M is the expected return on the overall market, and β_E is the systematic risk of the equity.

II. The cost of debt, R_D

A. For a firm with publicly held debt, the cost of debt can be measured as the yield to maturity on the outstanding debt. The coupon rate is irrelevant. Yield to maturity is covered in Chapter 6.

B. If the firm has no publicly traded debt, then the cost of debt can be measured as the yield to maturity on similarly rated bonds (bond ratings are discussed in Chapter 6).

III. The weighted average cost of capital, WACC

A. The firm's WACC is the overall required return on the firm as a whole. It is the appropriate discount rate to use for cash flows similar in risk to the overall firm.

B. The WACC is calculated as:

$$\text{WACC} = (E/V) \times R_E + (D/V) \times R_D \times (1 - T_C)$$

where T_C is the corporate tax rate, E is the *market* value of the firm's equity, D is the *market* value of the firm's debt, and $V = E + D$. Note that E/V is the percentage of the firm's financing (in market value terms) that is equity, and D/V is the percentage that is debt.